

REMARKS

Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-7, 15-19, 64, 65, and 67-71 are presently pending. Claims amended herein are none. Claims withdrawn or cancelled herein are none. New claims added herein are none.

Substantive Claim Rejections

Claim Rejections under §103

The Office rejects all of the pending claims under §103. For the reasons set forth below, the Office has not shown that the cited references disclose, teach or suggest (under §103) the rejected claims. Accordingly, Applicant respectfully requests that the rejections be withdrawn and the case be passed along to issuance.

The Office's rejections are based upon the following references: **Li**: *Liang Li*, US Patent No. 5,774,588 (issued 06/30/1998) in view of **Karaev**: *Isaak Karaev et al*, US Patent No. 5,802,518 (issued 09/01/1998).

Overview of the Application

The Application describes a technology for recognizing the content of text documents. The technology may detect similarity between text-based works in an automatic and accurate manner. Furthermore, it may categorize content of text-based works in an automatic and accurate manner.

Generally, the technology determines one or more hash values for the content of a text document. Furthermore, the technology may generate a "sifted text" version of a document.

1 In one implementation described herein, document recognition is used to
2 determine whether the content of one document is copied (i.e., plagiarized) from
3 another document. This is done by comparing hash values of documents (or
4 alternatively their sifted text).

5 In another implementation described herein, document recognition is used
6 to categorize the content of a document so that it may be grouped with other
7 documents in the same category.

8 9 Cited References

10 The Office cites Li as its primary reference in its obviousness-based
11 rejections.

12 The Li reference is owned to the United Parcel Service, Inc. (UPS) and is
13 apparently utilized in electronically reading (e.g., via optical character recognition)
14 addresses on packages. Li describes a technology for efficiently comparing an
15 unverified string to a "lexicon," which filters the lexicon through multiple steps to
16 reduce the number of entries to be directly compared with the unverified string.

17 The Li method begins by preparing the lexicon with an n-gram encoding,
18 partitioning and hashing process, which can be accomplished in advance of any
19 processing of unverified strings. The unknown is compared first by partitioning
20 and hashing it in the same way to reduce the lexicon in a computationally
21 inexpensive manner. This is followed by an encoded vector comparison step, and
22 finally by a direct string comparison step, which is the most computationally
23 expensive.

24 The reduction of the lexicon is accomplished without arbitrarily eliminating
25 any large portions of the lexicon that might contain relevant candidates. At the

1 same time, the method avoids the need to compare the unverified string directly or
2 indirectly with all the entries in the lexicon. The final candidate list includes only
3 highly possible and ranked candidates for the unverified string, and the size of the
4 final list is adjustable.

5 The Office also cites **Karaev** in its obviousness-based rejections. This
6 reference is owned by Multex.com, Inc. and describes the secure electronic
7 distribution of research documents over the World Wide Web to investors who are
8 authorized to receive said research documents. A repository server receives
9 research documents from contributors.

10 Also received are corresponding document profiles with information
11 relating to each research document including authorization information specifying
12 who is permitted to access each research document. The repository server includes
13 a first database for structured query searches and a second database for full text
14 searches.

15 A web server is coupled to the repository server and coupled to the World
16 Wide Web. The web server receives requests from investors for research
17 documents that satisfy a query. The web server determines whether the first
18 database or the second database should be searched based upon the type of query.
19 The repository server transmits to the web server a list of research documents that
20 satisfy the query and which the investor is authorized to access according to the
21 authorization information. The web server then formats the list of documents
22 according to a template form. The system also has a control mechanism to prevent
23 concurrent unauthorized access by two people using the same ID/password
24 combination.

1 **Obviousness Rejections Based upon Li in view of Karaev**

2 The Office rejects claims 1-7, 15-19, 64-65 and 67-71 under USC § 103(a)
3 as being unpatentable over **Li** in view of **Karaev et al.** Applicant respectfully
4 traverses the rejections of these claims.

5
6 **Claim 1**

7 With the cited portions of **Li** and **Karaev** provided in brackets, claim 1
8 recites (in part):

- 9
- 10 • obtaining a body of text containing textual content in a
11 computer-readable format; [**Li**: Figs. 1A and 6, step 100;
12 **Fig. 1B, step 120; Col. 6, lines 40-50**]
 - 13 • formatting the body of text into a defined image-based
14 format, wherein the textual content of the defined image-
15 based formatted body of text is immutable via software tools
16 for manipulation of textual content of bodies of text; [**Karaev**
17 **et al.: Col. 3, lines 28-30 and lines 33-37**]
 - 18 • deriving a hash value representative of the textual content of
19 the body of text, perceptually distinct bodies of text having
20 hash values that are substantially independent of each other.
21 [**Li**: Figs. 2, 4A-B, and 5; col. 7, lines 17-67, col. 8, lines 1-
22 14];

23 The Office admits that **Li** does not teach the “formatting” action, as recited
24 in the claim. The Office therefore relies on **Karaev**, which teaches a remotely
25 accessible web server that takes contributed documents and converts them to PDF

1 format. On page 3 of the Action, the Office states that it would be obvious to
2 combine the “teaching of [] Karaev of converting the data into the PDF format in
3 order to safer guard the data, in to Li’s system.” Applicant, however, submits that
4 **Li** and **Karaev** do not teach or suggest all of the elements of claim 1, as there
5 exists no motivation to combine these references in this way.

6
7 *No Motivation to Combine References*

8 Applicant submits that there is no suggestion, teaching, or reason given by
9 one reference that would motivate one of ordinary skill in the art at the time of the
10 invention (hereinafter, “OOSA”) to combine it with the teachings of the other
11 reference. More specifically, there is no motivation to combine because:

- 12 • the combination of references destroys or frustrate the intended
13 function of **Li**;
- 14 • no motivation exists in the references themselves to make the
15 combination; and
- 16 • the Office has not provided any objective and particular evidence
17 showing why OOSA would be motivated to combine the teachings
18 of the two references.

19 Accordingly, the Applicant therefore respectfully asks the Office to
20 withdraw its rejection of these claims.

21
22 *No Motivation to Combine: Combination would Destroy or Frustrate the*
23 *Intended Purpose*

24 Applicant submits OOSA would have no motivation to combine the
25 teachings of **Karaev** with **Li** because the resulting device/approach will destroy or

1 frustrate Li's intended purpose. The stated purpose of Li is to "*more efficiently*"
2 compare a text string to a lexicon of text strings. (Col. 14, lines 15-17) (emphasis
3 added). The example provided by Li and cited by the Office illustrates this
4 purpose of efficiency. (See Col. 13, line 66 through Col. 14, line 14). This
5 example demonstrates that the Li comparison method can be completed in less
6 than 54 milliseconds.

7 The Office indicates the combined teaching of the cited references suggests
8 a modification of Li so that its text string is "a defined image-based format."
9 However, Applicant submits that this modification to Li results in a less efficient
10 process rather than a more efficient process. Indeed, not only might this result in
11 an inoperable device, but it also adds an additional step to the Li process; thus
12 further slowing down the comparison.

13 Moreover, as illustrated by Fig. 6 (and described in its related text), one of
14 the first actions taken in the Li method is the conversion (via OCR) of an address
15 on a package *from an image to a text*. Again, it would be directly adverse to the
16 purpose of Li to immediately convert this just-converted text back again into an
17 image. Therefore, no motivation exists to make this modification, as it would
18 result in a much slower method, if the method were still operable at all.

19 For the foregoing reasons, Applicant submits that the combination of cited
20 references results in a modification which is directly adverse to the purpose of the
21 Li method. Accordingly, OOSA would have no motivation to combine the
22 teachings of cited references.
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No Motivation to Combine: Cited References Express no Motivation to Combine

Applicant submits OOSA would have no motivation to combine the teachings of **Karaev** with **Li** because the neither reference expresses a reason to combine the teachings of these references, either explicitly or implicitly. At p. 3 of the Action, the Office suggests that the motivation to combine the teaching of these references is “in order to safer guard the data” utilized in **Li**’s approach.

However, Applicant submits that **Li** never teaches, discloses, suggests or hints at any need to safeguard its data. The problem solved by **Li** relates to identifying the intended destination city that may be incorrectly or illegibly written on a package to be mailed. Applicant submits that this problem does not imply a need to safeguard data. It also does not suggest utilizing an image-based format which avoids “manipulation of textual content,” as recited in claim 1.

In addition, **Karaev** does not disclose that its teaching could be utilized in a system for comparing strings of text (like what **Li** discloses).

For the foregoing reasons, Applicant submits that neither reference expresses a reason to combine the teachings of these references. Accordingly, OOSA would have no motivation to combine the teachings of cited references.

No Motivation to Combine: No Showing of Objective Evidence

Furthermore, Applicant respectfully submits that the Office has not met its burden in showing a motivation to combine **Li** and **Karaev**. More specifically, the Office has not identified any objective and particular evidence found in the cited references that show why OOSA would be motivated to combine the teachings of the two cited references.

1 The Office has not identified any specific portion of the cited references as
2 being objective and particular evidence that would have motivated OOSA to look
3 towards the teachings of the other to produce the combination of references that
4 the Office proposes. Applicant respectfully submits that the Office cannot
5 maintain this obviousness-based rejection without pointing out, with particularity,
6 the specific portions of the cited references that would have motivated OOSA to
7 look towards the teachings of the other to produce the combination of references
8 that the Office proposes.

9 For the foregoing reasons, Applicant submits that he Office has not met its
10 burden in showing objective evidence to combine references. Accordingly, OOSA
11 would have no motivation to combine the teachings of cited references.

12 In sum, Applicant submits that there is no suggestion, teaching, or reason
13 given by one reference that would motivate one of ordinary skill in the art at the
14 time of the invention (hereinafter, "OOSA") to combine it with the teachings of
15 the other reference. More specifically, there is no motivation to combine because
16 the combination of references destroys the intended function of Li; no motivation
17 exists in the references themselves to make the combination; and the Office has
18 not provided any objective and particular evidence showing why OOSA would be
19 motivated to combine the teachings of the two references.

20 Accordingly, the Applicant therefore respectfully asks the Office to
21 withdraw its rejection of these claims.
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Claims 2-7 and 67-69

These claims ultimately depend upon independent claim 1. As discussed above, claim 1 is allowable.

In addition to its own merits, each of these dependent claims is allowable for the same reasons that its base claim is allowable. Applicant submits that the Office withdraw the rejection of each of these dependent claims because its base claim is allowable.

Claim 15

In rejecting claim 15, the Office stated that it was rejected for arguments analogous to those presented in rejecting claim 1. If this is true, then Applicant submits that claim 15 is allowable for at least the same reasons as discussed above in regards to claim 1. Accordingly, Applicant asks the Office to withdraw its rejection of claim 15.

Claims 16-19, 70, and 71

These claims ultimately depend upon independent claim 15. As discussed above, claim 15 is allowable.

In addition to its own merits, each of these dependent claims is allowable for the same reasons that its base claim is allowable. Applicant submits that the Office withdraw the rejection of each of these dependent claims because its base claim is allowable.

Claim 64

In rejecting claim 64, the Office stated that it was rejected for arguments analogous to those presented in rejecting claim 1. If this is true, then Applicant submits that claim 64 is allowable for at least the same reasons as discussed above in regards to claim 1. Accordingly, Applicant asks the Office to withdraw its rejection of claims 64.

Claim 65

In rejecting claim 65, the Office stated that it was rejected for arguments analogous to those presented in rejecting claim 15. If this is true, then Applicant submits that claim 65 is allowable for at least the same reasons as discussed above in regards to claim 15. Accordingly, Applicant asks the Office to withdraw its rejection of claims 65.

Dependent Claims

In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant submits that the Office withdraw the rejection of each dependent claim where its base claim is allowable.

1 **Conclusion**

2 All pending claims are in condition for allowance. Applicant respectfully
3 requests reconsideration and prompt issuance of the application. If any issues
4 remain that prevent issuance of this application, the Office is urged to contact the
5 undersigned attorney before issuing a subsequent Action.

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7 Respectfully Submitted,

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9 Dated: 8/15/05

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